



Indoor Air Quality Tools for Schools

Indoor Air Quality (IAQ)

“EVALUATION DATA DRIVES CHANGE”

– Ms. Diane Rhodes, Director of Environmental Health, North East Independent School District

Schools that leverage the [Evaluate Driver](#) of the *IAQ Tools for Schools Framework for Effective IAQ Management* are better-positioned to create healthier learning environments. Evaluation helps you assess your progress toward your goals and your program’s impact on student and staff health, productivity and performance. Evaluation involves **soliciting feedback** and **capturing return on investment** by monitoring metrics, such as the number of IAQ complaints, the cost of IAQ-related repairs, and changes in school nurse visits, attendance rates and test scores over time.

Read some examples below of districts that have used evaluation to refine their program and showcase their successes, and learn how you can do the same.

Keller Independent School District

Led by Superintendent Dr. James Veitenheimer, Keller Independent School District (KISD) sought to “operationalize excellence.” KISD adopted EPA’s *IAQ Tools for Schools Framework* and included a robust evaluation component in their IAQ management plan, thereby capturing measurable data points. Over the last three years, KISD has demonstrated great success:

- Increase of over 10% on state assessment scores.
- Increase of 65.4% in scholarships offered, directly reflecting increased student performance on state and national assessments.
- Increased average daily attendance rate to 97%.
- Decreased operating costs, despite the addition of four new campuses.

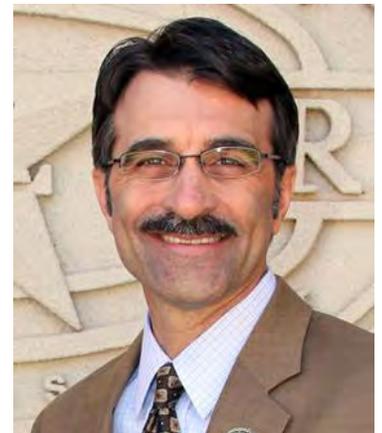
KISD reports key data points, including assessments and attendance rates, using “Data Dashboard,” a district-wide intranet site that is accessible to all district employees.

State assessment scores are uploaded by KISD’s Assessment Department and the average daily attendance rates are reported daily and automatically posted to Data Dashboard. KISD’s Health Services also tracks contagious illness and immediately reports an outbreak to the Director of Operations so that proactive disinfecting and sanitization processes can be implemented.

Using similar data capture mechanisms can help you demonstrate the value of your IAQ management program and secure buy-in among school and community leaders. Additionally, showing the direct connection between their actions and student health and achievement can empower operations and maintenance staff.

North East Independent School District

Ms. Diane Rhodes, BBA, RRT, AE-C, RCP, Director of Environmental Health at North East Independent School District (NEISD), has worked to incorporate the [Evaluate Driver](#) as a key component of NEISD’s IAQ management



Dr. James Veitenheimer, Superintendent, Keller ISD, in Keller, Texas. KISD has been the recipient of multiple *IAQ Tools for Schools* awards, including the National Model of Sustained Excellence Award in 2010.

program. During the program's six years, NEISD has experienced significant increases in student achievement and reduced absenteeism, including an overall 1.7% increase in attendance during flu season. Based on state funding formulas, NEISD calculates that their [potential revenue](#) lost per year from the number of school days missed due to asthma could reach \$2,063,616. However, by increasing attendance of all students with asthma in the district by **one day**, NEISD can receive \$257,952, per year in attendance funding.

Ms. Rhodes offers some of NEISD's best practices for evaluation:

- **Establish baseline data.**

When establishing an IAQ management program, assess current IAQ conditions in your school. NEISD conducted a [Web-based parent asthma survey](#) to assess the [quality of life of students with asthma](#). NEISD used this baseline aggregate data to determine the needs of the district and identify specific areas to improve asthma awareness, environmental conditions, symptom tracking and asthma education. NEISD also tracks [other key data points](#), including the frequency of inhaler and nebulizer use among students with asthma and average daily attendance rates.

- **Conduct an environmental assessment and record meaningful metrics.**

Conduct a school walkthrough to assess IAQ conditions of your school. Record data on metrics included in EPA's [Walkthrough Inspection Checklist](#), such as mold and moisture issues, ventilation sources and types of cleaning supplies used in the school. Also note occupant behavior and education, custodial practices, building facilities issues, chemical storage and air summary information. Next, identify correlations between this data and attendance issues, campus clinic health reports and facilities maps. This step can help you determine a connection between environmental conditions and the health of your students. If problems are noted, these results can be circulated to campus administrators.

- **Implement a health data collection software program.**

NEISD created an online database called [Health Check](#) that tracks key student health indicators, such as headache, cough, fever and itchy eyes. This database is particularly helpful to track and manage the prevalence of asthma and IAQ symptoms in schools. This database allows for constant assessment and evaluation of NEISD's IAQ management program and allows NEISD to isolate IAQ problems by classroom.

Assessing the impact of your IAQ management program on student [health and achievement](#) is a critical step to constantly improving your program and capturing your return on investment. Evaluation can also identify opportunities to decrease costs through preventative maintenance. Follow Dr. Veitenheimer and Ms. Rhodes' examples by using EPA's [IAQ Tools for Schools Framework for Effective IAQ Management](#) to develop, sustain and evaluate your IAQ management program.

Access Additional Resources for the Evaluate Driver

Use the additional resources below to learn more about how schools have used successful strategies to evaluate their IAQ management programs.

- **Envisioning Excellence: IAQ Strategies in Action (PDF)**

This document provides illustrative examples of how school districts incorporate the Framework for Effective School IAQ Management into their programs.

- **Case Studies:**

Read [profiles of school districts](#) that put the Framework for Effective IAQ Management into action.

What strategies have you used to evaluate your IAQ management program?

Share your strategies with your peers on the [Schools IAQ Connector Email Discussion List](#). If you are not already a member, join the Email Discussion List today. To join, send a blank email message to schools_iaq_connector-subscribe@lists.epa.gov. Then, check your email inbox for confirmation and membership details.



Under Ms. Rhodes' leadership, NEISD has received multiple *IAQ Tools for Schools* awards, including the National Model of Sustained Excellence Award in 2010 and the Special Achievement Award in 2008.